

FACULTY MENTOR

Tina Ng

PROJECT TITLE

Recording Repetitive Behaviors and Physiological Stress in Autism

PROJECT DESCRIPTION

Description: The project description is to incorporate wearable sensors for objective assessment of repetitive behaviors in children with autistic spectrum disorder. The student should have some prior experience with Arduino-type of programming electronics.

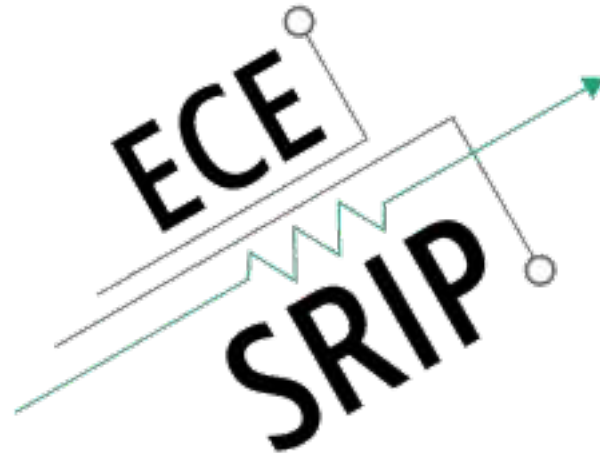
INTERNS NEEDED

1 BS and 1 MS

PREREQUISITES

Required Qualifications:

1. Experience with Arduino-type of programming electronics



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PROJECT TITLE

Objective assessment of motor disorders

PROJECT DESCRIPTION

Description: The project is to incorporate wearable sensors for objective assessment of motor disorders in children with cerebral palsy. The sensor glove will be tested on patients to measure their muscle resistance.

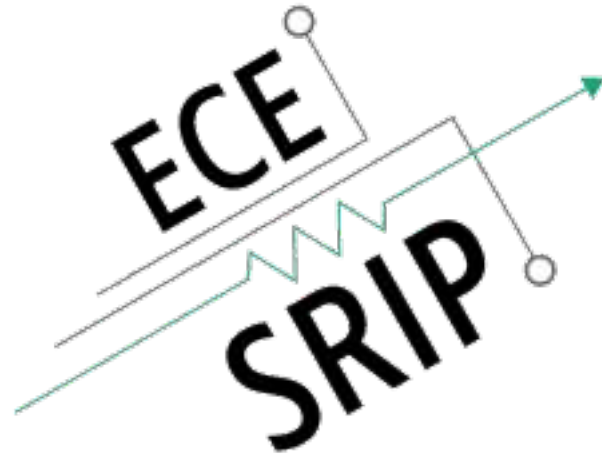
INTERNS NEEDED

1 BS and 1 MS

PREREQUISITES

Required Qualifications:

1. Matlab and some experience with Audrino-type of programming skills



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PROJECT TITLE

Understanding Cycle Life of Conducting Polymers as Anodes for High-Energy Supercapacitors

PROJECT DESCRIPTION

Description: The goal of this proposal is to connect the electrochemical and mechanical properties of n-type conducting polymers, in order to extend their redox stability for a new class of energy dense, high power supercapacitors. This project aims to understand the mechanisms that lead to capacitance fade and potentially solve major constraints on the operational lifetime and scalability of Faradaic energy storage materials.

INTERNS NEEDED

1 MS

PREREQUISITES

Required Qualifications:

1. Must have device physics fundamentals